

Invention That Saves Millions

By H. O. BISHOP

IT TOOK a youngster of 28 to put over an invention that will revolutionize the entrance and departure of vessels from harbors. From the time of Columbus down to the present day one of the most expensive problems of transportation has been the delay occasioned by heavy fogs compelling vessels to anchor outside of harbors or postpone the hour of sailing.

Earl C. Hanson, of Los Angeles, has outdone all the grizzled electrical inventors of the world by evolving a simple and ridiculously inexpensive arrangement whereby vessels can be piloted in or out of tortuous harbors.

Young Hanson's invention is so exceedingly simple that many electrical inventors are now kicking themselves for having overlooked the solution.

This fog taming contrivance consists of the laying of a cable in the center of a ship channel in bay or river. Through this cable is sent an electric current, which, through telephonic listening devices on board ship, can be heard sounds of a certain pitch that cannot possibly be mistaken for any other signal.

The man whose job is to steer a vessel in or out of a harbor prepares himself for that task by slipping a listening instrument over his head which in appearance is similar to that used by the "hello" girls at a switchboard. This hearing apparatus is attached by wires to the hull of the ship, thus making it possible to pick up the current from the cable lying on the bottom of the channel. The ship follows the course of the cable at full speed as though the sun were shining and the air clear. Any variation is immediately shown by visible indicators, which point in feet the distance from the cable. By the ear receivers the indicator may be confirmed at all times. Vessels that are going into port will use one cable and those leaving will use another. The sounds are different on each cable, making collisions impossible.

To make it possible for the captain of a vessel at all times to know how far his boat has progressed, the inventor has placed lead insulations at a distance of every mile on the cable through which no sound can pass, and by which the pilot checks the exact location of the boat.

According to the experts of the United States Navy,

who have made exhaustive tests, Mr. Hanson's invention is thoroughly reliable in all conditions.

A feature of the invention is the trivial cost of operation. To furnish the necessary electrical current for a cable into New York Harbor from Sandy Hook to the steamship docks, about 20 miles, will cost ten cents an hour—about equal to lighting an ordinary residence.

The cost of equipping the channel into New York with a "Hanson" cable, including cost of cable and all labor for laying same, would be about \$100,000. That sum, of course, sinks into insignificance when it is realized that the buoys alone that mark the winding course of the channel from Sandy Hook to New York cost \$1,500,000.

When harbors are fitted with the Hanson invention ocean traffic will be placed on a par with that of high-class railway systems, as far as regularity of arrival and departure schedules of boats is concerned.

Vessels oftentimes are delayed at harbors a third of the time required to cross the ocean. It is authoritatively stated that every hour of fog delay to one of the larger liners costs \$4,000. A delay of 24 hours, therefore, means approximately \$100,000 loss. Add to this the wages of the longshoremen who sit idly on the docks waiting for the fog to clear; the idleness of thousands of freight cars held for the same cause, and the idleness of employees at points of freight destination, and consequent loss of business, and some idea may be obtained of the present "fog bill" America pays every year. It must be remembered that the same expense and loss of time is incurred when outgoing steamers are held by fog.

Corporations and individuals engaged in coastwise traffic between Washington, Oregon and California points on the Pacific Coast, and the more numerous ports on the Atlantic Coast from Maine to Florida and from Florida across the Gulf of Mexico to New Orleans and Galveston, are just as deeply interested in the prompt adoption of this simple and inexpensive plan to overcome delays by fogs as are the trans-Atlantic concerns.

It is considered probable that Congress will take early action in equipping all American harbors with the invention of Mr. Hanson's.



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EARL C. HANSON

Why is the fee given to a servant called a "tip"?

Because the letters which compose the word are the initials of "to insure promptness," an inscription on the money boxes which used to be in every tavern. Into these the traveler dropped his coin, and the staff, as a whole, shared the benefit. This custom still prevails in some places, but in the United States we give the fee to the particular individual who serves us.

Why is a married woman living apart from her husband called a "grass widow"?

Because she is a widow by courtesy or "grace." The term "grace widow," which is from the French, means any woman separated from her husband otherwise than by death. The French pronunciation of "grace" is the same as our "grass," which explains the corruption to "grass widow."

Why do widows wear caps?

Because when the Romans were in England they used to shave their heads as a sign of mourning, and as woman could not let herself be seen with a bald head, she made herself a pretty cap. Though the necessity for it has long since passed away, the cap still remains.

Why do many persons, half in jest and half in earnest, knock on wood as a preventive of misfortune?

Because there was at one time a general belief that trees and humanity were allied in close bonds of union, and that certain trees had healing qualities. It was customary for a person afflicted with disease to take a woollen string of three colors, and with his right hand tie his left loosely to the limb of a tree, then slip it out and hasten homeward without casting a glance back, the belief being that the disease was transferred to the tree by touching it. Thus from a tree it has become common practice to touch any article made of wood to ward off misfortune.

Why do we wear heels on our shoes?

Because the sandal-like footgear of olden times was not adapted to horseback riding, and when the high boots were introduced heels were put on for the purpose of giving the foot a good hold on the stirrup.

Why and Because

Why do brides wear veils at the marriage ceremony?

Because it was the Anglo-Saxon custom to perform the nuptial ceremony under a square piece of cloth held at each corner by a

tall man, the object being to hide the bride's blushes. From hiding both bride and bridegroom the custom changed and the bride only was shielded from the inquisitive gaze, and the veil was substituted for the cloth.

Why do persons sigh?

Because an interval of several seconds, during which the walls of the chest remain rigid and cause oxygen starvation, always follows moments of mental disquietude; when nature demands her supply of oxygen the deep inhalation occurs, the expiration after, which we call a sigh.

Why, when a person displays a cowardly spirit, do we say that he "shows the white feather"?

Because in the days when cockfighting was the popular sport a white feather in the tail of a bird was taken as evidence of inferior breeding and courage and the term became common among the slang phrases of the period as applied to persons who showed a lack of courage.

Why do physicians place at the head of prescriptions the letter R, with a line through the tail?

Because the letter represents the Latin word recipe, the imperative of which means "take," and the little dart (originally a thunderbolt) is the symbol of Jove or the Latin god Jupiter, which invests the writer with authority. The sign, therefore, means, "By my authority, take this," but properly translated is, "By Jupiter, take this."

Why are traveling boxes called trunks?

Because in the days of William the Conqueror boxes for carrying money and valuables were made in a very primitive fashion, the lids being simply half the trunk of a tree hollowed out; hence the name. In an old Kentish church in England there is to be seen such a trunk, which is said to be the one in which the Conqueror kept the money with which he paid his soldiers.

The Origin of Sports

By FRANK DORRANCE HOPLEY

BASEBALL

GAMES in which balls are used have been played by nearly every nation, for ages. Over 4,000 years ago, in the 12th Egyptian dynasty, historians tell us, a Coptic artist sculptured on the temple of Beni Hassan, human figures throwing and catching balls. A ball with a leather cover, used in games played on the Nile over forty centuries ago, may be seen in the British Museum in London.

In the sixteenth century the game of ball was very popular among the nobility in England, France and Italy. The Chinese have also played ball, in various ways, for centuries, and the game has also, with many variations, been played in Japan.

A commission of national ball players, ex-Senators and sportsmen was formed in 1907 to look into the origin of baseball in America. Their report was made, dated December 30 of that year. In it they unanimously declared:

First, that baseball had its origin in the United States.

Second, that the first scheme for playing it, according to the best evidence obtainable to date, was devised by Abner Doubleday, at Cooperstown, New York, in 1839.

Mr. A. G. Spalding, in his book, "America's National Game," gives a statement of Mr. A. G. Mills, one of the commission, as follows:

"In the days when Abner Doubleday attended school in Cooperstown, it was a common thing for two dozen or more of the schoolboys to join in a game of ball. Serious collisions between the players in attempting to catch the batted ball were frequent, and injury due to this cause or to the practice of putting out the runner by hitting him with the ball often occurred. It appears, for this reason, perhaps, that Doubleday provided for eleven men on a side instead of nine."

The theory of evolution of the game of baseball, as advanced by Mr. Spalding, is an interesting one. He says:

"However historians may differ as to the origin of the American National Game, all must agree that the sport had as its foundation a Ball. Without that as its base, the superstructure of the grandest pastime ever devised by man would never have been erected.

"In order to realize on the ball it is necessary to have some one put it in motion. Placing the ball in the hands of the first lad who happens along, we may be assured he will do the rest. And he does.

"I'll tell you what we will do," says Tom. "I'll throw the ball against the barn. You get that old axe handle over there and strike it as it comes back. If you miss the ball and I catch it, you're out; but if you hit the ball and can run and touch the barn before I can get the ball and hit you with it, you count one. If I hit you with the ball before you get back to your place, you're out."

"They try it, find it works well, and the third stage of the game has developed into Barn Ball, with two boys, a bat and a ball.

"Again it happens that it is not sometimes altogether convenient to play Barn Ball. Tom and Dick are coming from school with Harry. They tell him about their game of ball and the fun there is in it.

"I'll tell you what we can do," says Tom. "You and I, Dick, will throw and catch, just as we did the other day, and Harry can stand between us with the club and try to hit the ball. If he misses and either of us catches the ball before it hits the ground, or on the first bound, he is out and the fellow that catches the ball takes the club.

"If he hits the ball far enough to get to that rock over there and back again before one of us gets the ball, he counts one tally, but if one of us hits him with the ball, he is out."

"Thus the game of One Old Cat was born, and the fourth step has been evolved, with three boys, a bat, a ball and a base."

The final step in the evolution of the game came in 1839, as has before been stated, when Abner Doubleday adopted the diamond-shaped field, and the other points of play, which were also adopted by the Knickerbocker Baseball Club in New York, upon its organization in 1845. "Then it was," Mr. Spalding says, "that the number of players participating in the game was limited to eighteen—nine on a side; a pitcher, a catcher, a short-stop, first, second and third basemen, right, center and left fielders, four bases, bat and ball, and was the game of baseball substantially as played today.

"The organization of the Knickerbocker Baseball Club was the beginning of a most important era in the history of the game, for it was the first recorded movement of that kind. For more than thirty years the Knickerbocker Club maintained an amateur organization and, as such, was a model in every respect.

"In 1846 a party of players styling themselves 'The New York Nine' issued a challenge to the Knickerbocker to play a match for a dinner, of course. The event came off in Hoboken on June 19. The contest was a very one-sided affair. The challengers won by a score of 23 to 1, only four innings being necessary to score the 23 runs.

"It was five years before the Knickerbocker Club engaged in another baseball match. In June, 1851, the Washingtons challenged the Knickerbockers who, having profited by their defeat by the New York Nine, had greatly improved their game. They appeared upon the ground in new uniforms, composed of blue trousers, white shirts and straw hats, creating a profound sensation. The score of this game was 21 to 11 in favor of the Knickerbockers, for eight innings."